

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L17-940-CA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #4792155668.03

[TESTLAB] UL, LLC

[ISSUE DATE] 2026-08-07

[TEST DATE] 3/17/2026

[MANUFAC] H E Williams Inc

[LUMCAT] CMR2AENG-L17-940-CA-DIM-UNV (A,E&N)

[LUMINAIRE] 2' x 2' multi-function recessed troffer with door frame; door

[MORE] frame has arrangement of curved diffused acrylic lenses

[OTHER] This test was performed using the calibrated photodetector method

[MORE] of absolute photometry.

[OTHER] The reported results were measured in a facility that meets the

[MORE] requirements of ANSI/IES LM-75-19. The device under test emits no

[MORE] detectable uplight as defined by ANSI/IES LM-75-19.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6360
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	66.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.75 ft
Luminous Width (90-270)	1.75 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7947	7343	6870
55	7111	6563	6054
65	6135	5591	5124
75	4837	4130	3638
85	2952	1152	698

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273
5	2803.007	2793.533	2793.160	2784.179	2777.381	2782.229	2789.477	2787.900	2797.466	2788.271
10	2751.805	2739.763	2725.444	2703.949	2691.023	2700.142	2717.953	2728.775	2738.806	2727.939
15	2666.730	2647.085	2615.909	2576.859	2556.439	2571.194	2604.117	2629.257	2644.228	2627.183
20	2547.882	2520.923	2468.833	2413.925	2383.873	2406.403	2452.366	2495.078	2513.711	2491.395
25	2401.055	2366.737	2296.105	2225.735	2194.764	2216.356	2274.222	2331.421	2353.853	2326.376
30	2223.916	2186.253	2101.756	2027.123	1993.192	2016.042	2073.992	2140.970	2165.974	2135.368
35	2030.866	1988.557	1897.775	1820.463	1789.005	1807.958	1864.254	1935.505	1966.920	1930.769
40	1823.977	1779.284	1686.011	1613.990	1585.508	1600.464	1647.879	1722.704	1759.684	1719.237
45	1600.392	1561.317	1478.596	1412.763	1383.517	1398.278	1438.452	1504.947	1538.336	1502.561
50	1380.233	1346.905	1275.114	1209.206	1182.503	1194.132	1236.075	1294.436	1322.873	1292.771
55	1161.601	1135.436	1072.051	1009.472	988.857	994.430	1036.403	1088.943	1110.791	1087.726
60	946.698	930.374	868.355	818.413	800.414	804.275	838.202	891.016	903.232	890.050
65	738.393	730.825	672.861	631.155	616.745	618.864	649.118	699.415	702.848	698.592
70	540.272	536.155	483.212	449.702	437.676	440.719	466.754	513.353	513.004	512.715
75	356.557	350.132	304.392	277.540	268.175	272.878	295.211	335.690	337.540	335.235
80	197.075	185.272	147.657	125.758	116.790	124.545	144.475	178.441	185.750	178.168
85	73.282	54.548	28.602	18.228	17.326	18.181	28.252	53.260	68.754	53.137
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273	2813.273
5	2789.601	2782.353	2777.505	2784.179	2792.417	2792.017	2803.007
10	2717.582	2700.018	2691.271	2703.887	2724.639	2738.061	2751.805
15	2603.126	2570.761	2556.593	2576.828	2615.105	2645.321	2666.730
20	2450.509	2405.722	2383.966	2413.677	2468.152	2519.190	2547.882
25	2271.405	2215.242	2194.888	2225.332	2295.052	2364.818	2401.055
30	2070.309	2014.526	1993.130	2026.659	2100.610	2184.086	2223.916
35	1859.766	1805.916	1788.726	1820.154	1896.289	1986.266	2030.866
40	1643.545	1598.111	1584.858	1613.928	1684.247	1776.560	1823.977
45	1435.016	1395.461	1382.960	1412.454	1476.770	1558.005	1600.392
50	1233.468	1191.223	1181.760	1208.679	1273.505	1343.563	1380.233
55	1034.698	991.520	988.176	1008.915	1070.255	1132.155	1161.601
60	837.022	801.622	799.950	818.011	866.591	926.939	946.698

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CANDELA TABULATION - (Cont.)

65	648.273	616.725	616.259	630.691	671.189	727.514	738.393
70	466.197	439.450	437.258	449.333	481.565	533.128	540.272
75	294.880	272.309	268.064	277.363	303.079	347.427	356.557
80	144.327	124.384	116.855	125.721	146.877	183.158	197.075
85	28.227	18.188	17.391	18.296	28.413	53.731	73.282
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	997.32	N.A.	15.70
0-30	2048.5	N.A.	32.20
0-40	3228.92	N.A.	50.80
0-60	5309.15	N.A.	83.50
0-80	6298.99	N.A.	99.00
0-90	6359.88	N.A.	100.00
10-90	6095.9	N.A.	95.80
20-40	2231.6	N.A.	35.10
20-50	3365.13	N.A.	52.90
40-70	2741.84	N.A.	43.10
60-80	989.84	N.A.	15.60
70-80	328.23	N.A.	5.20
80-90	60.89	N.A.	1.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	6359.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	263.98
10-20	733.34
20-30	1051.18
30-40	1180.42
40-50	1133.53
50-60	946.70
60-70	661.60
70-80	328.23
80-90	60.89
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	53	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	45	40	52	45	40	51	44	39	49	43	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	27

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UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	18.8	20.4	19.2	20.7	21.0	17.9	19.4	18.2	19.8	20.1
	3H	20.4	21.8	20.8	22.2	22.5	19.3	20.7	19.7	21.1	21.4
	4H	21.0	22.3	21.4	22.6	23.0	19.8	21.1	20.2	21.5	21.8
	6H	21.3	22.5	21.7	22.9	23.3	20.0	21.2	20.4	21.6	22.0
	8H	21.4	22.6	21.8	23.0	23.4	20.0	21.2	20.5	21.6	22.0
	12H	21.5	22.6	21.9	23.0	23.4	20.0	21.1	20.4	21.5	21.9

UGR Viewed Endwise

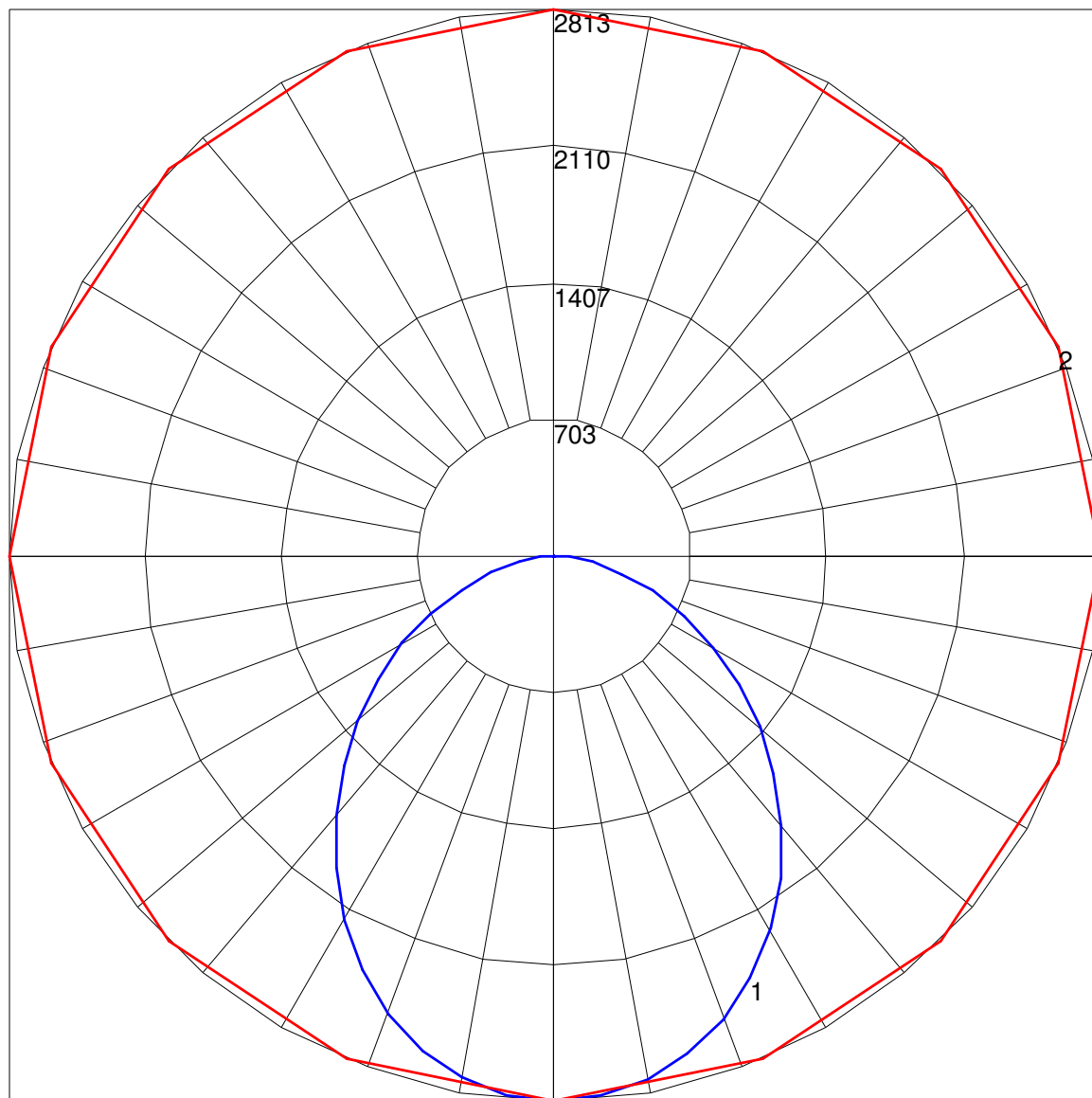
4H	2H	19.3	20.6	19.7	21.0	21.3	18.5	19.8	18.9	20.2	20.5
	3H	21.1	22.2	21.5	22.6	23.0	20.2	21.2	20.6	21.6	22.0
	4H	21.8	22.7	22.2	23.2	23.6	20.7	21.7	21.1	22.1	22.5
	6H	22.2	23.1	22.7	23.5	24.0	21.0	21.8	21.4	22.3	22.7
	8H	22.4	23.1	22.8	23.6	24.1	21.0	21.8	21.5	22.2	22.7
	12H	22.4	23.1	22.9	23.6	24.1	21.0	21.7	21.5	22.2	22.7

8H	4H	21.9	22.7	22.4	23.2	23.6	20.9	21.7	21.4	22.2	22.6
	6H	22.5	23.1	22.9	23.6	24.1	21.3	21.9	21.8	22.4	22.9
	8H	22.6	23.2	23.1	23.7	24.2	21.3	21.9	21.8	22.4	22.9
	12H	22.8	23.3	23.3	23.8	24.3	21.3	21.9	21.9	22.4	22.9

12H	4H	21.9	22.6	22.4	23.1	23.6	20.9	21.7	21.4	22.1	22.6
	6H	22.4	23.0	23.0	23.5	24.0	21.3	21.9	21.8	22.4	22.9
	8H	22.7	23.2	23.2	23.7	24.2	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 2813.273 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)